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ABSTRACT

This study examined the use of directive speech forms by 46 children 2-, 3-, 4-, and 5-years of age as a function of different tasks (play with dolls versus play with colored stickers) and of the presence versus absence of a peer partner. Directive utterances were stimultaneously categorized according to structure, form and the person they referenced (self, other, both). Directive speech forms included utterances that elicited immediate actions from an addressee (requests for goods) as well as utterances that more subtly controlled or limited the present or future actions of the speaker and the peer partner. Results indicated no significant age differences in the syntactic forms represented in the directive categories. In both of the peer situations, the imperative was the most frequently used directive type, and a previously unstudied category of utterances (describing action statements) was the second most frequently occurring directive type. There was significantly more directive speech in the sticker picture task than in the plastic doll task, with the largest difference occurring in the category of "describing one's own actions." There was relatively little overt directive speech in the alone task situation. (Author/SS)

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Directive Speech as a Function of Age, Task, and Presence/Absence of a Peer

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Several recent studies have focused on the ways in which preschool children make requests for action (Garvey, 1975; Mitchell-Kernan & Kernan, 1977; Reed & Cherry, in press). Garvey (1975) outlines conditions which underlie a sincere request: the speaker's wanting the listener to perform an act, the listener's willingness and ability to perform the act, and the listener's perceived obligation to comply with the request. Garvey identified four categories of requests in the spontaneous speech of same aged dyads of preschool children: direct requests such as imperatives, indirect requests which reference one of the sincerity conditions outlined above, indirect requests which reference general normative conditions of participant status, and inferred requests in which the listener must infer the action to be performed. Garvey's results indicated that younger children (3½ - 4½) produce more direct requests and fewer indirect requests compared to the older children (4½ - 5½). Inferred requests were relatively infrequent in the whole corpus of data. Garvey (1975) emphasized one aspect of directive forms--the meaning or role structure that underlies a request--and her categories included but did not differentiate a variety of structural, syntactic forms (questions, declarative statements, imperatives, etc.). Reed and Cherry (in press) similarly investigated the production of requests for action but their category system emphasized the different language forms employed by children to communicate this same directive function. Specifically, they examined the use of imperative forms, imbedded imperatives (questions with a modal verb), need statements (I want, I need) and declarative statements with directive intent with 2½, 3½ and 4½ year olds in an elicited task situation. Reed and Cherry's (in press) imbedded imperatives category is contained within Garvey's (1975) indirect requests category, and Garvey's category also includes request forms such as questions without a modal verb and declarative statements with a modal verb (I gotta). Reed and Cherry's (in press) categories of expressions of want and need and declarative statements with directive intent together seem to correspond to Garvey's (1975) inferred requests category. Although differences in category systems makes comparison of results across studies difficult, Reed and Cherry found that older children produced more imbedded imperatives than did younger children. All age groups produced the same number of expressions of want or need and declarative statements. The only obvious discrepancy with Garvey's results is her finding that there was no age difference in the production of imperative forms although this may be attributed to the task used by Reed and Cherry (in press) which tended to elicit explicit directive forms.

Ervin-Tripp (1977), in her review of the literature, suggests a developmental sequence for the appearance of directive forms in children's speech.

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Before the age of 2½, the first directive forms include gestures, naming a desired object, and words such as "want" or "more." During the third year, structural modifications and imbedding make their appearance, and the child uses question directives, permission directives, and modal imbeddings. By age 4, non-explicit hint directives such as declarative statements that make no reference to the desired action or object appear in children's spontaneous speech. Ervin-Tripp (1977) proposes that with development, children learn to conceal their purposes and to use non-explicit, unmarked requests. She delineates a category system of directive forms based on samples of adult speech that differs slightly from that proposed by Garvey (1975) and Reed and Cherry (in press) and emphasizes this explicit/non-explicit dimension of directive forms. Specifically for Ervin-Tripp (1976), imbedded imperatives are most often but not always question forms in which the actor, object, and beneficiary of the action is explicit while other question directive forms are non-explicit and resemble information requests (Are we out of coffee?). Permission directives (Can I have a color?) also employ a question form but are distinguished by Ervin-Tripp (1977) as a special directive category. Finally, while hints are most often declarative statements, they are similar to non-explicit question directive forms and expressions of want or need in that they do not specify the desired object and/or actor or action required.

In sum, investigators of preschool children's use of directive forms have focused on the syntactic, structural aspects of these forms (Reed and Cherry, in press), the meaning structure or shared assumptions that underlie a request for goods and services (Garvey, 1975), and the explicitness/non-explicitness dimension of various directive forms (Ervin-Tripp, 1976, 1977). However, in all of these studies, the term directive has been rather narrowly defined to mean requests for action. This focus has probably resulted from efforts to apply the findings from investigations of adults' use of request forms to children (Ervin-Tripp, 1976, 1977) and because requests, if successful, lead to an easily observable response from the addressee. Also, these studies have either ignored or deliberately disregarded (Garvey, 1975) the use of speech forms to regulate one's own actions. The study reported in this paper assumes a broader view of directive forms and attempts to examine the use of these forms as a function of task requirements and the presence vs. absence of a peer partner.

Specifically, it was thought that in a dyadic situation, speech may function not only to elicit immediate actions from an addressee (requests), but may also serve to direct, control, or limit the present or future actions of the peer partner and the speaker himself. Statements that describe one's own present or future actions or those of a peer in a task situation may subtly and indirectly influence the behavior, thinking, or attention of either member of the dyad. When a child describes his own actions or future actions, this verbalization may help him to focus his own attention, direct his thinking, or delimit his actions among an array of alternatives. Describing the actions of the peer partner may function similarly to direct the actions of the other or of the self. Such overt verbalizations may help children to define in common a task situation or to set shared goals.

One of the impetuses for the present study arose from our earlier work on children's speech-for-self (Fuson, 1979, Note 1; Olszewski and Fuson, Note 2). In that work, the great bulk of children's speech to themselves when playing

alone described things or described actions. The directive intent of such speech ranged from quite direct ("Now put this one on top.") to quite indirect ("That's red."). Some of the speech seemed to be serving the function of linguistically mapping the immediate environment of the child as she described things around her and her immediate past or present actions. It is this type of speech-for-self that has been considered as egocentric (unnecessary and redundant because it can be seen by another person in the situation) or as epiphenomenal (i.e., serving no function) (Piaget, 1926).

However, such speech seems to us to have at least three functions. The first one is mildly self-directive in the subtle ways described above for the dyadic situation. The second function is to practice the linguistic production of descriptions of things and actions in the immediate environment because such descriptions are required for communicating with, and directing the behavior of, another person. Linguistic practice by oneself does not enable feed-back to be received as in a situation with another person, but the practice would seem to be itself quite worthwhile. No implication is intended here that young children intentionally practice linguistic mappings of their environment, but rather that the very strong impulse towards linguistic production manifests itself (at least in certain children) when the child is alone as well as when the child is with another person. The third function of linguistic description of the immediate environment is to develop the descriptive skills necessary for describing things and actions removed from the present environment. A considerable portion of the linguistic interaction of 5-year-olds dyads concerns things and actions not physically present in the environment (Fuson, 1979). This requires a fairly high level of descriptive skill, one that would be reached more readily if the child practiced linguistically mapping his environment when he was alone as well as when he was in the company of another. These notions concerning some of the underlying functions of descriptive speech-for-self suggested that the types of directives actually used by pre-schoolers in communicative situations be examined. This was done in the present paper.

Previous research and the above analysis indicate that directives may include a variety of syntactic, structural forms (questions, imperatives, expressions of want or need, declarative statements that describe actions), may serve many functions (elicit actions, request goods, delimit actions, direct actions or attention, define a realm of activity, or assert normative rules for action), and may direct several persons (oneself, another, both members of a dyad). In order to investigate this interpretation of directive speech, all statements thought to carry directive intent were identified within three bodies of verbal data from 2-through 5-year-old preschool children. The three data samples included two peer task (toy andsticker task) situations and an alone task (toy) situation. These directive utterances were then categorized according to their syntactic, structural form and according to whether they directed the speaker (oneself), the peer partner (other) or both children (both). The two peer tasks allowed a comparison of the use of directive types of speech for self, other, or both in a situation where the experimenter set the goal (sticker task) vs. a situation in which the children themselves set the goal or goals. Also, as the peer toy tasks elicited fantasy play and non-fantasy play speech, the use of directive forms within these broad categories of speech were compared in order to determine whether the use of directive forms to a present peer partner differed from their use by an imaginary,

role-played character. Finally, the alone toy task and the peer toy task allowed a comparison of the speech forms children use to direct themselves when alone and those they use to direct themselves or another in a peer situation. In all of these comparisons, age was also a variable of study.

Method

Subjects

The subjects consisted of 46 children attending a preschool located in a middle class suburb north of Chicago; 8 two-year-olds, 12 three-year-olds, 12 four-year-olds and 14 five-year-olds.

Procedure

Each subject participated in four tasks alone and in two tasks with a same aged peer. The first three alone tasks were part of a larger study (Fuson, Householder & Urbaska, Note 3) and only the data from the fourth task, the toy task, will be reported in this paper. For this task, each individual child was placed alone in a room with several dolls and left to play by himself for three minutes. The dolls were plastic miniature replicas of people (mother, father, children) that stood upright, but otherwise had no moveable parts. The dolls varied in terms of several attributes (height: child vs. adult, color: red vs. blue and sex: male vs. female) and could be sorted according to these features. After every child had completed the four alone tasks, each subject was paired with a same aged peer and participated in two more tasks. For the first peer task, the dyad was seated at a small table with a large piece of drawing paper between them. Each subject was given four small sheets of paper containing gummed circles (each sheet a different color) which could easily be peeled off. The children were told by the experimenter to make a picture together using the stickers and were left alone for three minutes to complete the task. For the second peer task, each dyad was given the dolls described above and was similarly instructed to play together for three minutes. During the single alone task and the two peer tasks, a Sony tape recorder was placed in the room along with the children, and all speech was recorded. All the tasks were conducted within a room at the preschool the children were attending. In order to aid further discussion of the three tasks they will be referred to as the alone toy task, the peer sticker task, and the peer toy task, respectively.

Coding

All of the tape recordings for the three tasks were listened to and transcribed in toto two different times. All the speech was then divided into utterances based on inflections, sentence, structure and pauses by two coders. Agreement was at the 96% level. The children in the dyadic situation took turns speaking, and the number of utterances per child was roughly equivalent for each pair. The final coding of utterances into the directive speech categories took place in two steps. The first step consisted of an identification process. Two independent coders went through the transcripts and identified all those utterances which carried some directive intent. This included utterances that directly request

immediate actions as well as utterances that subtly direct one's own or another's attention, thinking, or future actions. Also included as directives were statements that attempt to define a common pretend situation in fantasy play, and statements that assert normative rules about permissable or allowable actions. Percent agreement between two independent coders for the first attempt at identification was 89% for the alone toy task, 82% for the peer sticker task and 92% for the peer-toy task. New guidelines for identifying directives were established based on the first coding attempt, and a new coder was trained. A second identification phase was undertaken with one new coder and one of the old coders. Percent agreement in this phase was 93%, 93% and 95% for the three tasks respectively.

The next coding step classified the identified directive utterances according to their structural, syntactic form and indicated whether each statement referred to was directed to the speaker (Self), the other child (Other), or to both children (Both). Directive types included imperatives which requested immediate action and were predominantly directed to an other; question forms (with a modal verb or without) which included imbedded imperatives and requests for goods or services; declarative statements which indicated possession of goods; statements that describe one's present actions; statements that describe one's future actions; declarative statements that include a modal verb and assert the rules or norms for actions; and expressions of want or need. Directive types were crossed with the Self, Other, Both variable to yield a matrix of directive forms shown in Table 1. Examples of directives from our data are given for each cell in this matrix (the few exceptions in which no such directives occurred are indicated in Table 1). The function of the Self, Other, Both distinction varies somewhat across the categories of directive types because of differences in these types. For imperatives and questions, Self, Both and Other refer to the recipient of the directive. For the other five directive types, Self, Both and Other designations indicate the subject of the directive utterance (see Table 1 for examples).

After identification of directive utterances was completed, utterances were coded into the directive type by person categories shown in Table 1. Percent agreement for each task was 99%. In addition to this coding, all directive speech in the toy alone and toy peer tasks was coded as occurring in fantasy play or non-fantasy play. Fantasy play included role playing speech, or utterances spoken by the child while he pretends to be an imaginary character. Non-fantasy speech included all task related non-role play speech such as talk about the division of the play materials. This further division of speech in the two toy tasks resulted in a matrix of cells (directive type crossed with the person--Self, Both, Other--variable) for fantasy play speech and non-fantasy play speech. Examples of both fantasy and non-fantasy directives are shown in Table 1. Two coders independently coded the directive speech in the two toy tasks as fantasy play or non-fantasy play speech. Percent agreement was 94% for each type of speech. All speech in the peer sticker task was non-fantasy speech. In addition to the distinction between fantasy and non-fantasy speech, a third kind of directive speech that was not clearly fantasy or non-fantasy speech was identified in the transcript from the two toy tasks. This third division included statements that while not spoken in characters (role played) refer to the pretense and the dolls, but describe the fantasy in the third person (e.g., "He's walking to the store."). These narrator-like statements were referred to as fantasy verbal supports and were generally

although not exclusively, describing action statements, or declarative statements which asserted an identity ("This is the boy") or a pretend setting ("This is where they live"). These statements were thought to function to set up a pretend or commonly defined pretend situation or enactment. Fantasy verbal supports were coded into the directive categories although these utterances were considered to refer to the dolls and therefore the Self, Both, Other distinction was not applicable. Two coders independently identified fantasy verbal supports in the data from the two toy tasks. Percent agreement for this identification was 80%. Because of this relatively low level of agreement, analyses of these directives were postponed until a higher level of agreement could be reached. The division of speech into the three broad speech categories (fantasy, non-fantasy, fantasy verbal supports) and the coding of directives into the directive type by person distinction categories for each of the three tasks is shown in Table 2.

Design and Analysis

The computation of dependent measures and the statistical analysis varied with the particular comparisons made. For each of these comparisons, the following directive categories were examined: Imperatives, Questions (collapsing questions with and without a modal verb), Declarative statements, Describing action statements (collapsing Describing actions and Describing future actions), Declaratives with a modal verb, and Expressions of want or need. All of our data were converted to number of utterances per minute. Most analyses of speech report data directly from the corpus, making comparisons across samples difficult.

1) Peer Toy Task vs. Peer Sticker Task Comparison

This comparison was aimed at examining the use of the above six directive forms in non-fantasy play speech for the sticker vs. the toy peer tasks. (Cells 5 and 7 of Table 2) Dependent measures consisted of rates (the mean number of utterances spoken per minute within a particular directive type by person distinction category). A 6(Directive type) by 2(Task: sticker vs. toy) X 3(Person distinction: Self, Both, Other) by 4(Age) analysis of variance with Task as a repeated measure, Directive type and Person distinction as a repeated speech measure, and Age as a between subjects variable was performed on the rate scores. For these analyses, the data from both members of a pair were pooled, and the combined pair score was considered the unit of analysis.

2) Non-Fantasy/Fantasy Peer Toy Task Analysis

This analysis was aimed at contrasting the use of the six directive forms within fantasy play and non-fantasy play in the peer toy task (Cells 4 and 5, Table 2). Dependent measures consisted of rates. A 6(Directive type) by 3(Person distinction: Self, Other, Both) by 2(Fantasy/Non-fantasy) by 4(Age) analysis of variance with Directive type, Person distinction and Fantasy/Non-fantasy as repeated speech measures and age as a between subjects variable was performed on the rate scores. Again, for these analyses, the pair scores served as the unit of analysis.

3) Alone Toy Task vs. Peer Toy Task

This comparison was aimed at examining the use of the six directive forms within fantasy play speech and non-fantasy play speech in the alone toy task vs. the peer toy task (Cells 1 and 2 vs. Cells 4 and 5, Table 2). Dependent

measures consisted of rates. A 6(Directive type) by 2(Task: Peer vs. Alone) X 3(Person: Self, Other, Both) X 2(Fantasy, Non-fantasy) X 4(Age) analysis of variance was performed on the rates scores. Directive type, Task, Person distinction, and Fantasy/Non-fantasy were repeated measures, and Age was a between subjects variable. Since the pair score was the unit of analysis, pseudo-pairs were constructed from the alone toy task data by combining the scores for the individual children who made up each real pair in the peer task. As this could not be done for one 5-year-old pair and one 4-year-old pair, there were only 21 pseudo-pairs for the alone toy task vs. 23 pairs for the peer toy task.

While only the results for the analysis of the rates are reported in this paper, some additional future analyses are planned including analysis of percentages of directives within categories.

Results

Peer Toy Task vs. Peer Sticker Task

Initial analysis of the rates for the Directive type by Person distinction categories within a non-fantasy play speech in the sticker vs. the toy peer task revealed no main effects of Age nor any significant interactions with this variable. Therefore, data was pooled across Age for the further analyses. There was a significant main effect of Task, $F(1,22) = 10.21$, $p < .004$. There was a higher rate of directive speech in the sticker task compared to the toy task (8.12 vs. 4.87 mean utt./min.) There was also a significant main effect of Directive type, $F(5,110) = 27.48$, $p < .001$. Imperative forms and Describing Action forms had the highest rates (2.64 and 1.8 mean utt/min.) of all the directive forms. The other four directive types had relatively similar rates (Questions: .45 mean utt./min; Declaratives: .52 mean utt/min; Declaratives with a modal verb: .57 mean utt./min and Expressions of want or need: .57 mean utt/min). The use of Directive forms varied significantly with the task (the Task by Directive interaction: $F(5,110) = 9.72$, $p < .001$). Imperative forms and Questions were used relatively to the same extent in both tasks (numbers shown in Table 3). Describing Action statements had a higher rate in the Sticker task compared to the Toy task (3.09 vs. .51 mean utt./min.) as did Declaratives with a modal verb (.74 vs. .40 mean utt/min) and Expressions of want or need (.67 vs. .39 mean utt./min.) Declarative statements had a slightly higher rate in the Toy task compared to the Sticker task (.56 vs. .47 mean utt./min.) These analyses also revealed a significant main effect of Person, $F(2,44) = 35.01$, $p < .001$. Most of the directive speech in these two peer tasks was directed to or was about the Other or the Self (3.26 and 2.72 mean utt./min per task) and relatively little speech was directed to or about both members of the dyad (.52 mean utt./min. per task for Both). For a separate analysis that used only two Person distinction categories (Self and Other), the main effect of Person was not significant, suggesting that the main effect found with Self, Other, and Both was a result of the large differences between the two single person categories (Self, Other) and the Both category.

The rates of speech directed to or about an Other, the Self, or Both varied significantly with the Task, $F(2,44) = 7.60$, $p < .002$. Mean rates are shown in

Table 3. In the Sticker task, there was more speech directed to the Self than the Other (4.00 vs. 3.37 mean utt/min) and the opposite trend in the Toy task (1.44 vs. 3.14 mean utt./min). There was little directive speech to or about both members in the dyad; Both speech was slightly higher in the Sticker task than in the Toy task (.75 vs. .29 mean utt./min.) A separate analysis that used only the Self and Other person distinction categories was consistent with these findings (the Person by Task interaction was significant: $F(1,22) = 9.54$, $p < .005$).

Directive types varied significantly with the Self, Both, Other distinctions as is revealed by a significant Directive type by Person distinction interaction, $F(10,220) = 46.14$, $p < .001$. Imperative forms were most often directed to an Other (2.54 mean utt./min) as were Questions (.39 mean utt/min) while Declaratives, Describing Action statements and Expressions of want or need most often referred to the Self (.31, 1.60, .47 mean utt./min respectively). Declarative statements with a modal verb referred equally often to the Self or to both members of the dyad (.20 and .25 mean utt/min. for Self and Both respectively). Separate analyses that used the Self and the Other person distinction categories supported these findings.

Finally, these analyses yielded a significant Task by Directive type by Person Distinction interaction, $F(10,220) = 8.53$, $p < .001$. Most of the results accounting for the three-way interaction have been presented, and this finding will not be discussed further (see Table 3).

Non-Fantasy/Fantasy Peer Toy Task Analysis

Analysis of the Directive type by Person distinction categories within fantasy play and non-fantasy play speech in the peer toy task revealed no significant main effect of the fantasy play/non-fantasy play variable nor any significant interactions with this variable. There was, however, a significant main effect by Directive type, F (5.95) = 28.16, $p < .001$. Imperative forms and Describing Action forms had the highest rates (5.08 and 2.64 mean utt./min.) The other four directive types had relatively similar rates (approximately .62 mean utt./min.) These are shown in Table 4. As with the non-fantasy speech across tasks, there was a main effect of Person distinction $F(2,38) = 22.54$, $p < .001$. Most of the directive speech was directed to or about the Other or the Self (5.68 and 3.80 mean utt./min). There was relatively little speech directed to both or about both members of the dyad (.72 mean utt./min). These results are shown in Table 4. A separate analysis that used only the Self and Other person distinctions also revealed a significant main effect of Person type, $F(1,19) = 4.93$, $p < .04$, suggesting that the amount of speech directed to or about the Other differed significantly from the amount of speech directed to or about the Self in this task.

These analyses also revealed a significant Directive type by Person distinction interaction, $F(10,190 = 33.45$, $p < .001$. This interaction is similar to that found across the Sticker-Toy tasks; the data for this interaction are shown in Table 4. Imperative forms were most often directed to an Other (4.54 mean utt./min) as were Question forms (.50 mean utt./min). Declaratives, Describing Action Statements, and Expressions of want or need most often referred to the Self (.40, 1.86, .66 mean utt./min. respectively). Declarative Statements with a modal verb referred equally as often to the Self or to both members of the dyad (.26 and .22 for Self and Both respectively).

While there was no main effect of Age, these analyses did reveal a significant Age by Person distinction interaction, $F(2,38) = 2.44$, $p < .04$. Two-year olds had more speech to or about an Other compared to the Self or Both (5.64, 3.12, .96 mean utt./min. for Other, Self, Both respectively) as did the four-year olds (7.8, 3.6, .72 mean utt./min. for Other, Self, Both respectively) and the five-year olds (5.64, 2.04, .84 mean utt./min.). Three-year olds had more speech directed to or about the Self compared to the Other or Both distinctions (3.84, 6.36, .88 mean utt./min. for Other, Self, Both respectively). Separate analyses involving only the Self and Other person distinctions supported this Age by Person distinction interaction ($F(1,19) = 4.93$, $p < .04$). There were no other significant interactions of Age with any other variable.

Alone Toy Task vs. Peer Toy Task

These analyses attempted to examine the use of the Directive type by Person distinction categories in the fantasy play speech and the non-fantasy play speech of the Alone vs. the Peer toy task. There was overall very little speech in the alone situation, and many children did not speak at all in that situation. Also, since it is likely that many of the significant interactions with Task are a result of small relatively unstable values in certain cells, only the significant main effects for this comparison will be discussed. There was a significant main effect of Task, $F(1,20) = 62.08$, $p < .001$. There was more directive speech in the Pair toy task (10.20 mean utt./min.) compared to the Alone toy task (.72 mean utt./min.). There was also a significant main effect of Directive type $F(5,100) = 25.29$, $p < .001$. Imperative forms and describing action forms were spoken more frequently (5.28 mean utt./min. and 2.73 mean utt./min. respectively) than the other directive types which had relatively the same rates (about .72 mean utt./min.). Finally, there was a significant main effect of Person distinction, $F(2,40) = 17.84$, $p < .001$. Most of the directive speech was directed to or referred to an Other or the Self (6.00 and 4.32 mean utt./min. for Other and Self respectively) and relatively little speech was directed to or referred to both members of the dyad (.96 mean utt./min.). A comparison of these figures with those in Table 4 will indicate the relatively small rates contributed to these cross-task means by the Alone speech.

Discussion

There were no main effects of age nor any significant interactions of age with directive type for any of the comparisons. This suggests that 2-through 5-year-olds possess all the structural, syntactic forms represented in the directive categories. The lack of an interaction of age with directive form is inconsistent with Garvey's (1975) finding that younger children (3½-4½-year-olds) use more direct request forms (Imperatives) than do older children (4½-5½-year-olds), although it does support Reed and Cherry's (in press) finding of no age differences in the use of imperatives in an elicited directive situation. Our task situations were actually more similar to that of Garvey (a cooperative peer situation) than that of Reed and Cherry (child talking to puppet in presence of adult experimenter). However, it may be that certain aspects of the task situation, such as the need to elicit or share desired goods and materials (cookies for Reed and Cherry, stickers and dolls for our task), are more impor-

tant than the designations "peer play" or "task" situation in determining the nature of the directives used and in determining the types of directives used by each age group. Our results were also inconsistent with both Garvey's and Reed and Cherry's in another respect--there was no increase in the use of indirect requests (Question forms) with age. However, this may be a result of our global question category which included imbedded imperatives, non-explicit questions forms, and permission directives. Our future analyses will distinguish these three indirect request forms in order to assess any developmental trends in their use. Finally, our data supported Reed and Cherry's finding of no age differences in the use of expressions of want or need.

There was a consistent main effect of directive type across tasks. Imperatives and Describing action forms were used most frequently while the other four directive types occurred less often (less than 1 per minute). The findings with respect to Imperatives are consistent with the findings of Garvey (1975) and Reed and Cherry (in press), both of whom reported imperatives as the directive type used most by all ages. Describing action forms were not coded in either of these studies, but our data indicate that they are a frequent form of subtle directive. Examples of the ways in which such forms function to direct (either by creating imitation or counter-imitation--doing the opposite or a different action) the other are the following:

1. A: I'm gonna put this to be some belly buttons.
   B: I'm gonna show his belly button.

2. A: I'm gonna make a sun.
   B: I'm gonna make a sun too.

3. A: I make a girl.
   B: I not gone to make a girl, I make a boy.
   A: I making a boy, too.
   B: I'm making a boy, I'm making a blue boy.
   A: I'm making a orange boy. I'm making green.

Statements describing actions also function as, and are sometimes clearly interpreted by the listener as, requests for permission, i.e., they serve as the opening move in a negotiation about the actions of the speaker. In this way they require action of the other, either to approve (actively or by non-objection) or disapprove the activity undertaken or about to be undertaken.

A: I'm gonna use the mother now.
B: Awright.

A: I'm using green for her pants.
B: Nooooo!

This category of describing actions (present and future) would seem to deserve further attention in the study of directive speech, especially in work which is attempting to investigate relationships between communicative speech and speech while alone. In addition to the influence upon the other child of these describing action statements, such statements may also serve to help to direct the child's own action ("I'm using the green now."), to maintain some step or action in memory, or to keep up the conversational flow.

Most directive speech was directed to or referenced the Self or the Other rather than Both members of the dyad, even though the instructions of the E had been to "work together" to make a sticker picture or to "play together" with the dolls. In fact, only of the 23 pairs made a picture together. All of the other pairs made two pictures on opposite sides of the paper, each one at the bottom of the page facing the child on that side of the table. Directive types consistently (across tasks and across fantasy/non-fantasy speech) interacted with the Self-Other person distinction. Imperative forms and Questions (which served to request goods and services)[1] were usually directed to an other where the other was either imaginary as in role playing or a physically present peer partner. Declarative statements were most often used by children to indicate their own possessions of goods (stickers, dolls) and therefore referred to the Self. Expressions of want or need similarly referred to the needs and desires of the speaker and referenced the Self. Children most often described their own present actions or future actions rather than those of an other or both members of a dyad. Declarative statements with a modal verb were used to assert rule statements about proscribed or normative actions for the self (speaker) and for both members of the dyad (i.e., I gotta..., we gotta...).

There was more directive speech emitted overall in the peer toy task (combined across fantasy and non-fantasy speech) than in the peer sticker task, although there was more directive speech in the non-fantasy talk of the sticker task than in the non-fantasy talk of the peer toy task. The greater number of directive forms within the non-fantasy speech of the sticker task was a result of more speech about the self in this situation. Specifically, there were more statements that described the actions of the self, more expressions of want or need for the self, and more declarative statements with a modal verb that referenced the self or both members of the dyad. The higher rate of Describing action statements in the sticker task may reflect the child's efforts to set sub-goals for himself ("I'm gonna make a sun") in a situation where the main goal had already been clearly determined by the experimenter (make a picture together). Expressions of want or need were used to request desired goods (different colored stickers) possessed by the play partner ("I need a blue one") in this task. Declarative statements with a modal verb asserted the required actions or normative duties of both members of the dyad in terms of the "joint" picture-making project and were probably more prevalent in the sticker task than in the peer toy task because of the well-defined goal (i.e., a shared picture). While there were more directives that referenced the self in the non-fantasy speech of the sticker task compared to the toy task, the two tasks did not differ in the amount of directive speech directed to or about an other. Speech to an other consisted predominantly of Imperative forms in both tasks. Also, within the non-fantasy speech of the toy task, there were slightly more Declarative statements compared to the sticker task. These statements usually indicated possession of goods, and their slight increase in the toy peer task may reflect the fact that the materials (dolls) were not divided between the children beforehand by the experimenter and such division was required before play with the dolls could begin. The attributes of the dolls were intentionally selected to make division non-obvious. Four dolls were red and two were blue, and two were adults and four were children. In many subject pairs, there was

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1. Not all questions in the corpus were coded for this study. Questions judged to be requests for information ("Is this one blue?") or not about the task ("When is your birthday?") were not coded.

initial negotiation about possession of the dolls. This was usually settled at the beginning of the task. In the Sticker task, the four sheets of stickers were placed two to either side of the common picture sheet, all in easy reach of the children. A few pairs divided the sheets at the beginning of the task, but most of them regarded the sheets as common property with access to all sheets by each child. However, such access had to be maintained during the task. In particular, if one was planning to use a particular sheet, one had to give some warning to prevent the use by the other child or one had to request the sheet if the other child was using it. The success of these aspects of possession of play materials in eliciting directives indicate that manipulation of the numbers and the desirability of play materials in relation to the task undertaken might prove to be a good way of studying children's spontaneous use of directive forms, i.e., such manipulations might affect the extent to which children undertake initial or repeated negotiations about possession of desirable or necessary play materials and might therefore enable a fairly sizable corpus of directives to be assembled for analysis. A difference in this aspect of the play situation might be at least partially responsible for the higher rate of direct requests (Imperatives) found in our data than Garvey reported in her free play situation. The mean rate of Imperatives in the Sticker task was 2.74 utt./min., and the mean rate in the Toy task was 2.53 utt./min. for non-fantasy speech alone and was 5.08 utt./min. for non-fantasy and fantasy speech combined. Garvey's figures would seem to indicate rates for all direct requests (including the one-sixth that were ill-formed) of about 1.75 for the 3½-4½-year olds dyads and 1.33 for the 4½-5½-year-old dyads (these rates were calculated by raising the dyad means by 1/6 and then dividing by 15, the approximate length of each dyad play interval).

There was no main effect of the fantasy play/non-fantasy play variable nor any significant interactions with this variable. All the directive types are evidently used by 2½-5-year-olds to the same extent whether the direction is of a play partner in one's own voice or of a play partner's fantasy character in a fantasy voice. However, when directive forms are pooled across fantasy play and non-fantasy play speech in the peer toy task, there is an increase in the number of Imperatives, statements that Describe actions, Expressions of want or need, and Declarative statements with a modal verb (although the fantasy play/non-fantasy play by Directive type interaction was not significant). This increase may reflect the shared or common definition of a pretend, imaginary situation that exists in role play. That is, a role-play when partners assume characters, a goal is set (e.g., enacting a fire, a fight, or a vacation trip) which elicits these directive forms to request needed goods within a fantasy situation, set sub-goals for a role-played character, limit the actions of the imaginary other or the actions of the child's own role played character, and proscribe normative actions of the pretend characters. Although in this paper we did not examine the content of the enacted dramas, Mitchell-Kernan & Kernan's (1977) finding that the use of request forms in role play by older children (7-12-year-olds) varies as a function of the status of the characters involved in the pretend and other aspects of the imaginary situation needs to be examined in this corpus to determine the generalizability of their results to younger children.

The age by person distinction interaction found in the peer toy task indicated that 2-, 4-, and 5-year-olds had more speech directed to or about an Other

compared to the Self or Both while 3-year-olds had more speech directed to or about the Self compared to an Other or Both members of the dyad. The increase in speech about the self for the 3-year-olds is the result of more Imperatives to the self in fantasy play speech (these were largely contributed by one pair) and an increase (compared to the other age groups) in Describing action statements within both fantasy play and non-fantasy play speech. The reliability of this finding with 3-year-olds needs to be established, and the nature of the directives used examined further. However, the existence of seeming differences in the speech-for-self produced by 3-year-olds was also found by Fuson (Note 1) in two different samples. It may be that the linguistic skills of 3-year-olds have advanced to a level at which they can both act and linguistically describe their actions while 2-year-olds do not possess sufficient skills to do both of these well, and older children do not still possess the impulse to map linguistically their immediate action environment to as great an extent as do the 3-year-olds who have just become able to do so. These particular data are presently being analyzed in more detail in an attempt to determine the source of this particular age difference.

While the results for the alone vs. the peer toy task comparison were largely uninterpretable because of the very low rate of directives in many of the alone categories, our data do suggest a much lower rate of directive speech of all kinds in an alone situation. While the use of the directive types for overt self-direction was minimal, such direction may be carried on covertly in an alone situation. It also should be noted that the amount of <u>any</u> speech was very much less in the Alone situation, and these data have not yet been analyzed with respect to the percent of total utterances that carry directive import. This will be done. In addition, the corpus of data from 2- to 4-year-old children playing alone in their own homes described in Fuson (Note 1) is also being examined for the presence of directives. The amount of speech-for-self was greater in that free play context than in the task situation of the Alone task analyzed here.

In summary, no main effects of age and no age by directive category interactions were found. Thus, at least in the somewhat open task situations of this study, even 2-year-olds produced all of the directive forms used by 5-year-olds, and they produced rates of these forms that did not differ significantly from those of older (3-, 4-, and 5-year-old) children. As with other studies, Imperatives was the single highest category of directives. However, the other category with a relatively high rate of utterances was one not studied before: utterances describing present or future action. Some utterances of this form functioned as directives by providing a linguistic description of some part of the present or immediately proposed future environment. This description then directed the next act of the other (or of the self in the Alone situation) by provoking an imitation of or a reaction to the described action, by focusing the listener's attention on some aspect of the environment (which in turn sets off some related act), or by eliciting an interpretation of the statement as the opening volley in negotiations about future acts and/or possessions (which then elicits the next step in such a round of negotiations). The first two of these are ways in which directives could

function both to another and to the self; the last would seem only able to occur with the self in the quasi social situation created by an alone fantasy play situation in which two role-played characters could undertake such negotiations. Such describing action statements may also serve to direct the thoughts and the actions of the self or the other in other ways. The relatively high rate of occurrence of this category as compared to other directive categories usually treated (e.g., permission directives, hints, indirect requests) indicates that it might well by considered in future research in this area.

Reference Notes

Note 1. Fuson, K.C. Developmental patterns in speech-for-self. Paper presented at the meeting of the Society for Research in Child Development, San Francisco, April, 1979.

Note 2. Olszewski, P. & Fuson, K.C. An investigation of the verbally expressed fantasy play of preschoolers as a function of toy structure. In preparation.

Note 3. Fuson, K.C., Householder, J., & Urbaska, F. The use of private speech by two through five year olds. In preparation.

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Table 1

Directive Types by Person Distinction

	Other	Self	Both
Imperatives	Color one leaf. *You shut up your mouth.	(Be more careful.)	
Questions (Imbedded Imperatives)	Whyn't you do these ones? *Why don't you help us?	(How am I gonna do this?)	(Are we gonna do this together?)
Questions with a modal verb	Will you watch where you're going?	Can I have a red? (Permission Directives)	(Can we make a house?)
Declarative Statements	This is your car. *Now the mother and father are you.	This is my red. *I'm a little boy too.	We have the other one. *Here we are.
Statements that Describe Actions	You making a picture. *You pushed him down.	I make a blue one. *I took you and your girlfriend.	We're making 'em all red. *We're walking
Statements that Describe Future Actions	You're gonna do it on top of the green. *Mommy, she's gonna kill me.	I'm gonna make the green. *I'm gonna put you into the moon.	We're gonna have to call it a name too. *We will kill the girls.
Declaratives with a modal verb (rule or norm statements)	You could do whatever you want. *You got to go home now.	Now, I gotta do my red one. *I gotta go shop.	We can make whatever we want. *We have to ride our bicycles.
Expressions of want/need	(You need some green for the flowers.)	I need some green for the flowers. *I wish we could go home now.	We need to make the sun. *We both want those letters.

1. Parentheses indicate that there were no examples of this type of utterance in the sample although such examples seemed possible to occur.

* Indicates directives used in fantasy play.

Table 2

Speech Coding by Task

Task	Fantasy (role-playing speech)	Non-Fantasy (task related non-play speech)	Fantasy Verbal Supports (verbal descriptions of the pretend)
Alone Toy	Directive Type by Self, Other, Both 1.	Directive Type by Self, Other, Both 2.	Directive Type by Dolls 3.
Peer Toy	Directive Type by Self, Other, Both 4.	Directive Type by Self, Other, Both 5.	Directive Type by Dolls 6.
Peer Sticker		Directive Type by Self, Other, Both 7.	

1. The analyses contrasting cells three and six were not done.

Table 3

Rates* of Non-Fantasy Directives by Category Types and Person Categories in the Peer Sticker and Toy Tasks

Task	Sticker				Toy			
Person	Other	Self	Both	Category Mean Totals	Other	Self	Both	Category Mean Totals
Imperative	2.64	.10	.00	2.74	2.43	.10	.00	2.53
Question	.35	.06	.00	.41	.42	.06	.00	.48
Declarative Statement	.13	.25	.09	.47	.14	.36	.06	.56
Describing Action Statements	.12	2.80	.17	3.09	.02	.39	.10	.51
Declaratives with a modal verb	.13	.25	.36	.74	.13	.14	.13	.40
Expressions of want/need	.00	.54	.13	.67	.00	.39	.00	.39
Mean Totals Person	3.37	4.00	.75		3.14	1.44	.29	
Task				8.12				4.87

* Mean number of directives per pair per minute

Table 4

Rates* of Directive Types by Person Distinction Categories Summed Across Fantasy/Non-Fantasy Speech in the Peer Toy Task

Directive Types	Person Distinctions: Other	Self	Both	Category Mean Totals
Imperative	4.54	.54	.00	5.08
Questions	.50	.08	.00	.58
Declarative Statements	.18	.40	.00	.58
Describing Action Statements	.30	1.86	.48	2.64
Declaratives with a modal verb	.14	.26	.22	.62
Expressions of want/need	.02	.66	.02	.70
Mean Totals Person	5.68	3.80	.72	

*Number of directives per pair per minute